

CLAIMS

1 1. (previously presented) A method for use in wireless equipment, the method comprising
2 the steps of:
3 receiving user channel transmit power information from base stations involved in a soft handoff
4 with user equipment; and
5 receiving information from the user equipment, the information received from the user
6 equipment comprising a value representative of an excess signal-to-noise ratio determined by the user
7 equipment as the amount by which a signal-to-noise ratio value of one or more user channel signals
8 received at the user equipment exceeds a target signal-to-noise ratio value;
9 wherein the wireless equipment determines a reference user transmit power level for use by the
10 base stations as a function of the received user channel transmit power information and the received
11 information from the user equipment.

1 2. (canceled)

1 3. (previously presented) The method of claim 1 wherein the information received from the
2 user equipment comprises a value representative of the excess signal-to-noise ratio of a user channel
3 signal received from one of the base stations that is stronger than the user channel signal received from
4 another of the base stations.

1 4. (currently amended) A method for use in wireless equipment, the method comprising the
2 steps of:
3 receiving user channel transmit power information from base stations involved in a soft handoff
4 with user equipment; and
5 receiving information from the user equipment, wherein the information comprises an identifier
6 of a base station with a received signal at the user equipment that is stronger than the received signal of
7 other base stations and a signal-to-noise ratio value of the signal received from the identified base station;
8 determining a downlink reference power from the received user channel transmit power
9 information and from the base station identifier and the signal-to-noise ratio value in the received
10 information from the user equipment; and
11 transmitting the determined downlink reference power to the base stations.

1 5. (currently amended) [[A]] The method of claim 4 wherein the signal-to-noise ratio value
2 represents an excess signal to noise ratio value determined as the amount by which the signal-to-noise
3 ratio value of the signal received from the identified base station exceeds a target signal-to-noise ratio
4 value.

1 6. (currently amended) A method for use in wireless equipment during a soft handoff of
2 user equipment with a number of base stations, the method comprising the steps of:
3 identifying, at the user equipment, a base station with a received signal at the user equipment that
4 is stronger than the received signal of one or more other base stations; and
5 calculating, at the user equipment, a signal-to-noise ratio value of the signal received from the
6 identified base station; and
7 transmitting the identity of the identified base station and the calculated signal-to-noise ratio
8 value from the user equipment to a control point of a wireless system, wherein the calculated
9 signal-to-noise ratio value represents an excess signal-to-noise ratio value determined as the amount by
10 which the signal-to-noise ratio value of the signal received from the identified base station exceeds a
11 target signal-to-noise ratio value.

1 7. (original) The method of claim 6 wherein the control point is a common control point.

1 8. (canceled)

1 9. (previously presented) Apparatus for use in wireless equipment, the apparatus
2 comprising:
3 a receiver for receiving user channel transmit power information from base stations involved in a
4 soft handoff with user equipment, and receiving information from the user equipment; and
5 a processor for determining a reference user transmit power level for use by the base stations as a
6 function of the received user channel transmit power information and the received information from the
7 user equipment, wherein the information received from the user equipment comprises an excess
8 signal-to-noise ratio value determined as the amount by which a signal-to-noise ratio value of one or
9 more user channel signals received at the user equipment exceeds a target signal-to-noise ratio value.

1 10. (canceled)

1 11. (previously presented) The apparatus of claim 9 wherein the information received from
2 the user equipment comprises a value representative of the excess signal-to-noise ratio of a user channel
3 signal received from one of the base stations that is stronger than the user channel signal received from
4 another of the base stations.

1 12. (currently amended) Apparatus for use in wireless equipment, the apparatus comprising:
2 a transceiver for (a) receiving user channel transmit power information from base stations
3 involved in a soft handoff with user equipment, (b) receiving information from the user equipment,
4 wherein the information comprises an identifier of a base station with a received signal at the user
5 equipment that is stronger than the received signal of one or more other base stations and a
6 signal-to-noise ratio value determined by the user equipment for the user channel signal received from
7 the identified base station, and (c) transmitting a downlink reference power to the base stations; and
8 a processor for use in determining the downlink reference power from the received user channel
9 transmit power information and from the base station identifier and the signal-to-noise ratio value in the
10 received information from the user equipment.

1 13. (previously presented) The apparatus of claim 12 wherein the signal-to-noise ratio value
2 represents an excess signal to noise ratio value determined as the amount by which a signal-to-noise ratio
3 value measured by the user equipment for the user channel signal received from the identified base
4 station exceeds a target signal-to-noise ratio value.

1 14. (currently amended) Apparatus for use in wireless equipment during a soft handoff with
2 a number of base stations, the apparatus comprising user equipment having:
3 a processor for use in (a) identifying a base station with a received signal at the user equipment
4 stronger than the received signal of one or more other base stations, and (b) calculating a signal-to-noise
5 ratio value for the user channel signal received from the identified base station; and
6 a transmitter for transmitting the identity of the identified base station and the calculated
7 signal-to-noise ratio value to a control point of a wireless system, wherein the calculated signal-to-noise
8 ratio value represents an excess signal-to-noise ratio value determined as the amount by which a
9 signal-to-noise ratio value associated with the received signal from the identified base station exceeds a
10 target signal-to-noise ratio value.

1 15. (original) The apparatus of claim 14 wherein the control point is a common control
2 point.

16. (canceled)

17. (currently amended) A transmission frame representing data embodied in a wireless transmission signal transmitted from user equipment to at least one base station, the transmission frame comprising:

a first portion of a field comprising at least one bit for conveying data representative of an identifier for identifying a base station whose received signal at [[a]] the user equipment is stronger than signals received at the user equipment from one or more other base stations; and

a second portion of the field comprising at least one bit for conveying data representative of a signal-to-noise ratio value of the received signal from the identified base station at the user equipment, wherein the signal-to-noise ratio value represents an excess signal-to-noise ratio value determined as the amount by which the signal-to-noise ratio value of the signal received from the identified base station exceeds a target signal-to-noise ratio value.

18. (original) The transmission frame of claim 17 wherein the transmission frame is conveyed via a radio resource control based protocol.

19. (original) The transmission frame of claim 17 wherein the transmission frame is conveyed via physical layer signaling.

20. (previously presented) The method of claim 3, wherein the received information from the user equipment comprises a value representative of the excess signal-to-noise ratio for the strongest received user channel transmit power signal.

21. (previously presented) The method of claim 1, wherein:
the base stations use the reference user transmit power level during a fast power control loop;
the user equipment determines the reference user transmit power level in a slow control loop; and
the fast power control loop is implemented multiple times for each implementation of the slow control loop.

22. (previously presented) The method of claim 4, wherein:
the base stations use the determined downlink reference power during a fast power control loop;
the user equipment determines the determined downlink reference power in a slow control loop;
and
the fast power control loop is implemented multiple times for each implementation of the slow control loop.

23. (new) The method of claim 4, wherein the downlink reference power is determined by summing (i) the user channel transmit power for the identified base station and (ii) a value based on the signal-to-noise value.

24. (new) The apparatus of claim 12, wherein the processor is adapted to determine the downlink reference power by summing (i) the user channel transmit power for the identified base station and (ii) a value based on the signal-to-noise value.

25. (new) A method for use in wireless equipment, the method comprising the steps of:
receiving user channel transmit power information from base stations involved in a soft handoff with user equipment; and

4 receiving information from the user equipment, wherein the information comprises an identifier
5 of a base station with a received signal at the user equipment that is stronger than the received signal of
6 other base stations and a signal-to-noise ratio value of the signal received from the identified base station;
7 determining a downlink reference power from the received user channel transmit power
8 information and the received information from the user equipment; and
9 transmitting the determined downlink reference power to the base stations, wherein:
10 the base stations use the determined downlink reference power during a fast power
11 control loop;
12 the user equipment determines the determined downlink reference power in a slow
13 control loop; and
14 the fast power control loop is implemented multiple times for each implementation of the
15 slow control loop.